

been amended to indicate that the substituent is a pharmaceutically acceptable substituent so as to avoid reading on things such as arsenic as noted by the Examiner in the previous response. It is believed that the present terminology is clearly supported by the application as filed. Lines 26 of page 1 through line 16 of page 2 clearly support the present terminology wherein it is discussed that the claimed compounds are equivalent to camptothecin and all known derivatives thereof with the exception that it has the presence of a β -hydroxy lactone instead of an α -hydroxy lactone. In other words, a 7-membered ring v. a 6-membered ring and all the known chemical substitutions on the skeletal structure are useful for Applicants' purposes. As noted in the previous response, Applicants have tested over 137 compounds as can be seen from the Thuriereau declaration of record. It has been found that all of the tested compounds have activity.


As pointed out to the Examiner at the interview on July 10, 2002, the novelty in Applicants' invention resides in the 7-membered ring β -lactones which are useful for treating cancer which was completely surprising for those skilled in the art. With the preliminary amendment of July 7, 2000, Applicants submitted three publications and the anticipation of one skilled in the art at the time of Applicants' invention would be led away from using a 7-membered ring β -hydroxy lactone for the treatment of cancer. Even after publication of Applicants' additional disclosure with respect to the novel 7-membered ring compounds, there were publications

indicating that those skilled in the art were completely surprised that the 7-membered ring β -hydroxy lactone compounds were active.

Applicants have submitted the declaration of Dr. Thurieau reporting on testing of the 137 compounds and all were useful for the treatment of various cancers. The cancers tested included cancer of the bladder, the breast, the central nervous system, the colon, leukemia, lung and prostate and all the compounds were active against cancer. It is deemed that Applicants have made a break through generic invention and are entitled to a claim of the scope of claim 18. Therefore, withdrawal of this ground of rejection is requested.

In view of the amendments to the claims and the above remarks, it is believed that the claims clearly point out Applicants' patentable contribution and favorable reconsideration of the application is requested.

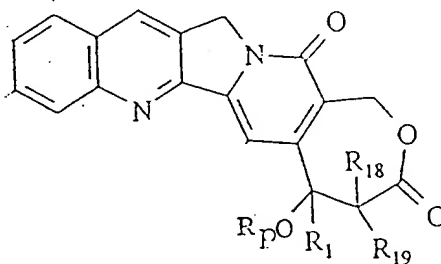
Respectfully submitted,
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CAM:ds
Enclosures

MARKED UP VERSION OF CLAIMS SHOWING CHANGES MADE

Claim 18 (four times amended) A method of treating a cancer selected from the group consisting of leukemia, colon cancer, lung cancer, prostate cancer and breast cancer in warm-blooded animals comprising administering to warm-blooded animals in need thereof a unsubstituted or pharmaceutically acceptable substituted camptothecin [analog] with a 7-ring member β -hydroxy lactone ring of the formula



wherein R_1 is selected from the group consisting of alkyl of 1 to 6 carbon atoms, alkenyl and alkynyl of 2 to 6 carbon atoms haloalkyl of 1 to 6 carbon atoms, alkoxy alkyl of 2 to 12 carbon atoms and alkylthioalkyl of 2 to 12 carbon atoms, R_p is hydrogen or an easily cleavable group, R_{18} and R_{19} are individually selected from the group consisting of hydrogen, halogen, OH and alkyl and alkoxy of 1 to 6 carbon atoms and its non-toxic, pharmaceutically acceptable salts.